

**REMARKS/DISCUSSION OF ISSUES**

Claims 1-34 are pending in the application. Claims 1-16 are rejected. Claims 3-8 and 14-16 are currently amended. Claims 17-34 are new.

Claims 3-8 and 14-16

Claims 3-8 and 14-16 are rejected under 35 U.S.C. 112, second paragraph, in containing both a broad range and narrower ranges.

Claims 3-8 and 14-16 are currently amended to delete the preferred ranges and amounts, and the preferred ranges and amounts are presented in new dependent claims 17-34.

Accordingly, the rejection under 25 U.S.C. 112, second paragraph, has been overcome and should be withdrawn.

Claims 1-5 and 9-13

Claims 1-5 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over previously cited Hendricx in view of previously cited Bruninx-Poesen.

Hendricx and Bruninx-Poesen are disqualified

Hendricx and Bruninx-Poesen are disqualified as references under 35 U.S.C. 103(c)(1), since at the time of Applicant's invention, both Applicant's invention and the inventions described in Hendricx and Bruninx-Poesen were commonly owned by, or subject to an obligation of assignment to a commonly owned assignee. See the "Guidelines Setting Forth a Modified Policy Concerning the Evidence of Common Ownership, or an Obligation of Assignment to the Same Person, as Required by 35 U.S.C. 103(c)," 1241 O.G. 96 (Dec. 26, 2000).

Response to Examiner's Arguments

In response to Applicant's prior arguments, the Examiner has responded that it would have been obvious to add the rare

earth halides disclosed by Bruninx-Poesen to the lamp of Hendricx because Bruninx-Poesen teaches that these salts are added to ensure proper arc stability, citing col. 2, lines 15-29 of the reference.

However, the referenced passage does not teach that these salts are added to ensure arc stability, but rather teaches that when these salts are present, the arc can be stabilized by the addition of sodium halide. See col. 2, lines 15-18.

Moreover, Hendricx is not concerned with arc stability, so even if the Examiner's contention were accepted, there would still be no motivation for the skilled artisan to add the rare earth salts of Bruninx-Poesen to the lamp of Hendricx.

In response to Applicant's argument that it would not be obvious to combine Hendricx and Bruninx-Poesen because their lamps have different sizes and internal pressures, the Examiner has stated that when the internal diameter of Bruninx-Poesen is extrapolated to that of Hendricx, 'pressure modulation inherently accommodates the discharge vessel size variation'.

However, Hendricx teaches that  $D_i < 2 \text{ mm}$  (page 3, line 4) while a pressure of at least 5 bar is required (page 4, line 16). These values are comparable to those of Applicant's arc tube, but are much different from an inert gas pressure of only 3300 Pa (e.g., col. 4, line 5) and an internal diameter of 15.5 mm (col. 3, line 53) which is equivalent to 0.033 bar, for Bruninx-Poesen.

Bruninx-Poesen's internal diameter is only about 8 times Hendricx's, while on the other hand Hendricx's internal pressure is at least 150 times Bruninx-Poesen's. Thus, there is no obvious correlation between internal diameter and internal pressure.

In response to Applicant's argument that the amounts of salts claimed by Applicant are different from those disclosed by Bruninx-Poesen, the Examiner has stated that when the disclosed amounts are extrapolated to a smaller arc tube diameter, they are in fact the same. This extrapolation is based on an assumed linear relationship.

However, there is no teaching in either of the cited references that there is a linear relationship between arc tube diameter and the amount of salts present in the arc tube. Absent such a teaching, the assumption can only be based on the doctrine of Official Notice.

As stated in M.P.E.P. section 2144(3),

Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known. As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420 (C.C.P.A. 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute".

It is well known that the chemistry of arc tubes is very complex and influenced by a number of factors, notably internal pressure, temperature etc. Thus, particularly where the pressure versus arc tube diameter relationship has already been demonstrated to be non-linear, a linear relationship with respect to salt content versus arc tube diameter cannot be assumed.

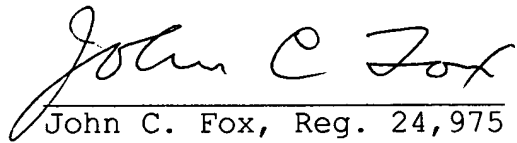
The Examiner's assumption that a linear relationship exists between arc tube diameter and salt content is not capable of instant and unquestionable demonstration as to defy dispute, and thus cannot be supported by taking official notice, but only by citing a written reference in support thereof.

Accordingly, in view of the above arguments, as well as the arguments advanced in the previous response, claims 1-5 and 9-13 are patentable over the combination of Hendricx and Bruninx-Poesen, and the rejection should be withdrawn.

Conclusion

In conclusion, Applicant respectfully requests that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance.

Respectfully submitted,

A handwritten signature in cursive script that reads "John C. Fox". The signature is written in dark ink and is positioned above a horizontal line.

John C. Fox, Reg. 24,975  
Consulting Patent Attorney  
315-521-2627